

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A rotating electrical machine comprising:
a housing;
a shaft mounted rotatably within the housing;
a rotor fixed to the shaft and providing a magnetic field;
a stator positioned about the rotor within the housing and having a winding;
a switch mounted ~~with~~within the housing and having a first position ~~for~~ allowing current flow in one-a first direction through the winding and a second position for allowing current flow in an-a second direction, opposite the first direction, through the winding;
a mechanical activator movable by the shaft and acting on the switch ~~so as to move it~~ the switch between the first and second positions when the winding is ~~so~~aligned so that current-inducing effects of the magnetic field on the winding are at or near a minimum, wherein, in use, the rotor rotates in only a single direction.

2. (Currently Amended) A rotating electrical machine comprising:
a housing;
a shaft mounted rotatably within the housing;
a rotor fixed to the shaft and having a plurality of poles made of ferromagnetic material;
a stator positioned about the rotor within the housing and having a winding;
a switch mounted within the housing and having a first position for allowing current flow in one-a first direction through the winding and a second position for allowing current flow in an-a second direction, opposite the first direction, through the winding;
a mechanical activator movable by the shaft and acting on the switch ~~so as to move it~~ the switch between the first and second positions, wherein, in use, the rotor rotates in only a single direction.

3. (Currently Amended) The electrical machine of claim 1 wherein the switch has a third position for not allowing current flow through the winding, and the mechanical activator moves the switch to the third position between the first and second positions.

4. (Currently Amended) The electrical machine of claim 3 wherein the mechanical activator comprises a cam mounted ~~about~~ on the shaft and a cam follower communicating with the cam and with the switch.

5. (Currently Amended) The electrical machine of claim 4 wherein the cam has four portions for respectively moving the switch to the first position for $1/6^{\text{th}}$ of a cycle ~~and~~, then to the third position for $1/3^{\text{rd}}$ of the cycle, ~~and~~ then to the second position for $1/6^{\text{th}}$ of the cycle, and then to the third position for $1/3^{\text{rd}}$ of the cycle.

6. (Currently Amended) The electrical machine of claim 3 wherein the mechanical activator comprises a crank and a linkage for moving the switch to the first position for $1/6^{\text{th}}$ of a cycle ~~and~~, and then to the third position for $1/3^{\text{rd}}$ of the cycle, ~~and~~ then to the second position for $1/6^{\text{th}}$ of the cycle, and then to the third position for $1/3^{\text{rd}}$ of the cycle.

7. (Currently Amended) The electrical machine of claim 1 including three switches positioned 120 angular degrees apart, and wherein the mechanical activator acts on all ~~the~~ three switches to move them in a sequence.

8. (Previously Presented) The electrical machine of claim 1 wherein the electrical machine is a permanent magnet brushless DC electric motor.

9. (Currently Amended) The electrical machine of claim 1 wherein the electrical machine is a DC ~~Switched~~ switched reluctance motor.

Claim 10. (Cancelled)

11. (Currently Amended) The electrical machine of claim 2 wherein the switch has a third position for not allowing current flow through the winding, and the mechanical activator moves the switch to the third position between the first and second positions.

12. (Currently Amended) The electrical machine of claim 1 wherein the mechanical activator comprises a cam mounted ~~about~~ on the shaft and a cam follower communicating with the cam and with the switch.

13. (Currently Amended) The electrical machine of claim 2 wherein the mechanical activator comprises a cam mounted ~~about~~ on the shaft and a cam follower communicating with the cam and with the switch.

14. (Currently Amended) The electrical machine of claim 2 including three switches positioned 120 angular degrees apart, and wherein the mechanical activator acts on all ~~the~~ three switches to move them in a sequence.

15. (Currently Amended) The electrical machine of claim 3 including three switches positioned 120 angular degrees apart, and wherein the mechanical activator acts on all ~~the~~ three switches to move them in a sequence.

16. (Previously Presented) The electrical machine of claim 2 wherein the electrical machine is a permanent magnet brushless DC electric motor.

17. (Previously Presented) The electrical machine of claim 3 wherein the electrical machine is a permanent magnet brushless DC electric motor.

18. (Currently Amended) The electrical machine of claim 2 wherein the electrical machine is a DC ~~Switched~~ switched reluctance motor.

19. (Currently Amended) The electrical machine of claim 3 wherein the electrical machine is a DC ~~Switched~~ switched reluctance motor.